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ABSTRACT

This study was designed to develop and field test a typology of framework providing for the systematic description, definition, and classification of activities in university continuing education centers. Basic questions pertained to whether such a typology could be developed, and whether other investigators and practitioners could use the typology and its elements with predictable results. In a pilot study, three program elements (objectives, interaction patterns, time) were formulated from an inductive analysis of 16 University of Chicago programs. This three-step process was later used to analyze 425 university continuing education programs and to sort them into 12 hierarchically arranged program types. Using a literature review and statistical procedures, the typology and program elements were then evaluated (and found generally satisfactory) on the criteria of comprehensiveness, usefulness, consistency, and acceptance. Limitations of the study were noted, followed by implications of the typology for further research. (The Ph. D. Thesis is available from the Dept. of Photoduplication, University of Chicago Library, Swift Hall, Chicago, Ill.) (LY)

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THE UNIVERSITY OF CHICAGO

THE DEVELOPMENT AND TESTING OF A TYPOLOGY
OF ADULT EDUCATION PROGRAMS IN
UNIVERSITY RESIDENTIAL CENTERS

ABSTRACT
OF
A DISSERTATION SUBMITTED TO
THE FACULTY OF THE DIVISION OF THE SOCIAL SCIENCES
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DOCTOR OF PHILOSOPHY

DEPARTMENT OF EDUCATION

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Introduction

The central concern of this study has been the development and testing of a typology of adult education programs which take place in university residential centers. Heretofore there has been no framework available to describe or define programs, to distinguish among various programs or to relate them to each other in any systematic way. Opinions about programs range from the position that every program is unique, to the position that all programs are basically the same. Thus, the major task of the present study was to discover, inductively, if somewhere in between these two positions, there were a way of grouping programs, at some level of generality, which would result in a minimal number of meaningful program types. For the purpose of this investigation an adult education program was defined as an organized group activity, involving temporary residence at the study site as a planned part of the activity, which is designed to increase the knowledge, skill, or sensitivity of individual adults; or to accomplish a task, or create a product, through group effort.

Purposes of the Study

The major purpose of this study was to develop inductively a typology (or framework) of adult education programs which would provide for the systematic description, definition, and classification of the activities which take place in university centers for continuing education. A second purpose of the study was to field-test the typology and its elements.

The Questions of the Study

The foregoing purposes were pursued within the guidelines of two sets of general questions. First, can a typology of adult education programs be developed?

Many adult educators seem to think that each program (i.e., each conference, seminar, or workshop) is unique. On the other hand, there are programs which seem to be very similar to other programs, and very unlike others. There appear to be characteristics (or elements) which are common to many programs, but it has not been at all clear what elements distinguish one kind of program from another kind. The problem, then, is to identify, describe, and define clearly such elements through inductive processes, trying at the same time to be aware of the many different potential elements suggested in an existing literature which is largely descriptive in nature. In addition, the elements must be related to each other in a systematic way which will help to increase our understanding of educational programs. The ultimate goal of the study was to relate whole programs to each other in a similar systematic manner.

Second, to what extent does the typology satisfy certain criteria which should be met by a valid classification scheme of the nature described in the discussion above? Specifically, can other investigators and practitioners use the typology and its elements with predictable results? Does the typology (or its elements) suggest new relationships, questions, and hypotheses about programs which can be tested? Are the typology and its elements sufficiently comprehensive that all programs can be described and assigned to its various classes? Are the typology and its elements consistent with existing research results? And, to what extent are the typology and its elements accepted by workers in the field of residential adult education? These questions will be answered by subjecting the typology and its elements to a rigorous series of tests to determine the extent to which the criteria are met.

Methodology of the Study

The first task of the study was the selection and development of an adequate methodology and research design which would fulfill and incorporate the theoretical and methodological bases and requirements of the investigation. The general framework selected for developing the typology has been described by Lorenz as "the classical three steps of inductive science: collecting the basis for induction, classifying it systematically, and abstracting lawfulness,"¹ The first step of this process was termed inductive analysis in this investigation and focussed upon a "holistic," impressionistic study of programs with a view toward sorting them into groupings of seemingly similar programs. This was followed by an "elemental analysis" of the groupings of programs in which specific program elements or indicators were identified through intensive analysis of individual programs within each group. The concluding step was a "synthesis," a re-combining of the program elements in order to define, describe, and organize systematically the several program types into the typology.

Pilot Study

This three-step process was employed in a pilot study, which was conducted to determine the feasibility of the investigation, to identify inductively specific elements of programs, and to test and refine certain aspects of the study design. The study attempted to focus as directly as possible on the known educative aspects of programs which could be clearly identified. In this phase three program elements (objectives, interaction patterns, and time) were developed from an inductive analysis of 16 programs conducted at the University of Chicago Center for Continuing Education. Once proven useful, the three-step inductive process was also utilized in the analysis of program data.

¹Konrad Lorenz, "Gestalt Perception as Fundamental to Scientific Knowledge," translated by Charlotte Ghurye, General Systems, Seventh Yearbook of the Society for General Systems Research (Ann Arbor: Society for General Systems Research, 1962), p. 38.

Definition of Key Terms and Concepts

A number of specific terms, concepts, and principles were identified and defined as a result of the pilot study and are as follows. In classification theory, a type is a phenomenon or object that exhibits the characteristic qualities of a kind, group, or class of those objects or phenomena; it serves as a representative or model specimen.¹ Therefore, a program type, for purposes of this study, is a description of an educational program which serves as a model specimen; it is based on program elements and their organizing principles. A program element is a component or constituent part of a whole program.² An organizing principle is a concept or rule which furnishes the basis for expanding (logically extending) and systematizing program elements and program types. A typology is defined as a classification scheme ordered and arranged on the basis of an organizing principle or on the basis of a set of organizing principles.³ The typology of adult education programs in university residential centers developed in this study, therefore, consists of several program types, each ordered and arranged in relation to the other program types on the basis of a set of organizing principles, and each serving as a representative specimen for one or another kind of program. To illustrate similarities and differences, and to bring together those types of programs which are related to each other, the various program types are grouped together in classes, which consist of one to four program types. Each class represents different levels of the typology.

¹Oxford English Dictionary (Oxford: The Clarendon Press, 1933), XI, 556.

²Oxford English Dictionary, III, 82.

³David R. Krathwohl, Benjamin S. Bloom, and Bertram B. Masia, Taxonomy of Educational Objectives; Handbook II: Affective Domain (New York: David McKay Company, 1964), p. 11.

Since there were an unknown number of potential program elements and organizing principles, the determination of these might have been arbitrary. To avoid this possibility, four guiding principles, which also became characteristics of the typology, were adapted from Bloom to guide the investigator in the selection of program elements and organizing principles, and the establishment of the program types. To insure that in its final form the typology was easily understood and used, it was checked against the guiding principles at each step in the development procedure. The four guiding principles are: (1) the typology is based on educational distinctions; (2) it is logically developed; (3) it is descriptive; and (4) it is set at a level of generality where loss by fragmentation is not too great.¹

Selection of Respondents and Data Collection

In order to provide a comprehensive study of as many kinds of programs as possible, a list of all known residential centers in the United States was compiled. Four university or college centers plus the University of Chicago Center for Continuing Education were selected to provide data on the basis of the diversity of programs conducted collectively by the centers. Three were large, year-round operations, with multi-purpose, broadly based programs; two operated smaller programs which were unique in purpose and location. In addition, the centers met these criteria: (1) each center was located in the United States East of the Continental Divide; (2) individual staff members were involved in the planning and conduct of programs; (3) the staff consisted of at least two persons who were willing to spend six to ten hours providing data; (4) individuals were on the staff for most or all of the period

¹Benjamin S. Bloom et al., Taxonomy of Educational Objectives: Handbook I: Cognitive Domain (New York: Longmans, Green and Co., 1956), pp. 13-15.

under study, July 1965 through June 1966; (5) not more than one center was located in any given geographical area. Some 480 programs were conducted in these centers during the study period, and data were actually collected on 425 programs (there were insufficient data on 55 programs). Utilizing an instrument incorporating the three program elements identified in the pilot study, the investigator described 226 programs conducted at the Chicago Center and four program directors and 11 conference coordinators described 199 programs at the other four centers.

An interview was conducted with each of the four program directors and with the most experienced coordinators in each of three centers. An interview was also conducted with each of the four professors of adult education who have published materials on adult education methods and techniques or residential programs.

Data Analysis and Testing

The data on the total of 425 programs were analyzed by the investigator and inductively sorted into twelve hierarchically ordered program types, which comprise the typology of adult education programs.

Following the analysis, the three program elements and the typology were tested by determining the extent to which they met five criteria: communicability, comprehensiveness, usefulness, consistency, and acceptance. Data for testing the typology and its elements included the following: a test-retest reliability procedure; a test of objectivity; eleven interviews as noted above; and a review of relevant research and theoretical literature.

Development of the Typology

This portion of the study was directed essentially at the first question raised earlier: can a typology of adult education programs in university residential centers

be developed through inductive processes?

During the pilot study three program elements emerged and were labelled interaction, objectives, and timing. Interaction is a bi-polar element and is based on the flow of direct communication among all actors in the learning situation. It consists of eight kinds of interaction, and at one end of the continuum is a didactic, lecture-type situation in which teachers have full responsibility for carrying on the learning situation and students listen passively. At the dialectical pole of the continuum, communication flows among all present, responsibility for the activity rests on all present, and each person has opportunity for extensive participation. The interaction element draws upon Ginther's bi-polar conception of the field of programming,¹ and is described in Appendix I.

The element objectives as utilized in this study was an adaptation of the cognitive and affective domains of the Taxonomy of Educational Objectives.² The two hierarchical domains were divided into three levels: low, middle, and high levels of objectives and both cognitive and affective objectives were included at each level as indicated in Appendix II.

The program element time is a pervasive and important element that was used in several ways in the study. First, it was used to determine the length in hours of each interaction session, with the result that it was possible to calculate the proportion of total program time that was devoted to each of the eight different kinds of interaction. The proportion of time in a program for any given interaction pattern may range from zero per cent to 100 per cent, and time therefore became an integral

¹John R. Ginther, "A Conceptual Model for Analyzing Instruction," in Programmed Instruction in Medical Education, ed. Jerome P. Lysaught (Rochester, N.Y.: The Rochester Clearinghouse, University of Rochester, 1965).

²Bloom, Taxonomy: Handbook I; and Krathwohl, Bloom and Masia, Taxonomy: Handbook II.

part of the interaction element. Second, it was used to determine the total length of each program in hours and days, with the result that empirical differences between a number of program types were identified. Third, time was important in relating sessions to each other with regard to intensity of content and experiences and sequence of activities.

Data on objectives, interaction patterns, and time of the 425 programs were inductively analyzed by the investigator; there emerged from several analyses twelve program types which could be logically ordered into five major classes. Each program type was then described by the investigator in terms of its (a) program objectives, (b) program format (s) ¹, and (c) time. Two other factors (a) nature of participants, and (b) articulation of the program's learning experiences, emerged from the data analysis and were useful in several cases in differentiating among some types of programs.

A synopsis of the typology is presented below, and for purposes of communicability a descriptive label has been attached to each program.

A Synopsis of the Typology of Adult Education Programs

Class A: Acquisition and Comprehension of Information or Knowledge

- A.1. Basic Information Program. --Dissemination of the latest information to experts in a field of study or a discipline. The program format utilizes didactic forms of interaction, and involves a minimum of articulation between sessions. The average program is about 1.4 days long.

¹The program formats, which are refined combinations of the interaction patterns, are ordered by three organizing principles: (1) the flow of communication within the program formats; (2) the passiveness or activeness of the student; and (3) the responsibility of teachers and students for carrying out the activity. The combining of these three principles results in a continuum which ranges from a didactic, or teacher-centered pole, to a dialectical or student-centered pole.

A.2. Introductory Instructional Program.--An instructional program systematically presenting a carefully defined body of basic knowledge (principles) to students who have a minimum of previous formal study. The program format may vary considerably, and involve lectures, panels, sub-group work sessions, and occasional independent study. The sequence of activities is carefully planned to provide progressive and developing experiences for students. The average program is about 4.5 days long.

A.3. Exploratory Program.--Exploration or discussion of a problem by a general audience. Both lectures and discussion opportunities are provided. Articulation between sessions is greater than in A.1. The average program is about 1.6 days long.

Class B: Application of Knowledge to Particular Situations

B.1. Advanced Instructional Program.--An instructional program in which the student acquires understanding of a body of basic knowledge and skills in applying that knowledge. The student often has extensive practical experience and perhaps a little formal study of the subject. The greater emphasis here on application distinguishes this program from A.2. Lectures and group discussions are split about equally in the program format. Students often have independent tasks to perform. The sequence of activities is planned carefully to provide progressive and developing experiences for students. The average program is about 3.7 days long.

B.2. Organizational Meeting.--The purpose of this meeting is to make decisions or solve problems pertinent to the on-going activities or purpose of the organization. The program format includes both didactic and dialectical interaction processes. Typical activities include lectures or reports with frequent discussion from the audience; also included are committee meetings. Articulation between sessions is usually not great, and often is based upon parliamentary procedure. The average length of programs is about 1.6 days.

B.3. Problem-Solving Program.--Discussion or exploration of a problem by means of the discussion. This program differs from A.3 in that the participants here are more actively working for answers. Mostly dialectical or discussion processes are used, with occasional analytical speeches. One session clearly provides the basis for subsequent sessions, although not quite to the extent necessary in instructional programs such as A.2 and B.1. The average length of programs is about 1.7 days.

- B.4. Understanding Human Behavior Program.**--An intensive program in which individuals try to understand themselves and others better through the experience of interaction with other people. The program format is dialectical, and uses the face-to-face group. While the program develops progressively, and in a more integrated way than almost any other program type, it takes a sophisticated observer to detect the group phases. The average program is about 2.9 days long.

Class C: Analysis or Exploration of Situations

- C.1. Analysis of Issues Program.**--The analysis and discussion of major social or public issues by confrontation of knowledgeable participants who hold differing and often opposing views. Format usually consists of a series of dialogues, or discussions, among experts. Some programs use a generalized problem-solving process in determining the sequence of events, though others use only a topical, somewhat arbitrary sequence. In the first case, each session provides information necessary before moving to the next session. The average program is about 2.0 days long.
- C.2. Situation Analysis Program.**--The systematic exploration and analysis of a problem or situation involving identification of the constituent elements or parts of the situation. Undertaken by a group, which hopes to propose some action to solve the problem, most of the time is spent in discussion groups. Articulation between sessions is based on a problem-solving process or sequence in which each succeeding session depends on what happens in earlier sessions. The average program is about 1.9 days long.

Class D: The Synthesis or Creation of Plans or Products

- D.1. Discipline Synthesis Program.**--The goal of this program is the study of a discipline or field of study in order to organize it and derive a set of new questions or hypotheses for further research. Participants are highly skillful and knowledgeable researchers. Analytical lectures and group discussion comprise the format. A problem solving process with its own inherent sequence of activities forms the basis for internal organization of the program. The average length of programs is about 3.8 days.
- D.2. The Product-Oriented Program.**--Participants in this kind of program create a plan or product of some kind by synthesizing or combining a number of elements into one integrated whole: a new curriculum, a plan for action, and so on. Interaction

processes usually involve a great deal of discussion activities, but may include some lectures. Participants are highly knowledgeable about the content of the plan. As in C.2 articulation is based on a problem-solving process. The average length of programs is about 2.3 days.

Class E: Integration of Personal Values Program

To achieve, in the individual, the integration of personal values in one or more aspects of his life. Interaction processes involve lecture, discussion, and independent study. Articulation between learning activities is high with special attention being focussed on reinforcement and progressive development of the individual. The average length of programs is about 4.2 days.

The major classes of the typology are based upon the objectives of the programs and are ordered hierarchically according to the complexity of behavioral objectives. Class A is the lowest level of the typology and emphasizes simple cognitive behaviors. Each higher (or more complex) level includes the behaviors of levels below it.

Within each of the five major classes the program types are ordered on a continuum according to their program formats (which are composed of both the interaction and time elements). Program types in Class A tend to exhibit a variety of program formats because the lower level objectives appear to be able to be achieved by a variety of interaction processes. Conversely, program types in Classes, B, C, D, and E tend to have principally dialectical formats because the higher level objectives appear to require a considerable amount of active participant involvement. The distribution of programs among the program types is shown in Table 1.

TABLE 1
DISTRIBUTION OF PROGRAMS AMONG THE PROGRAM TYPES
N=425

Type of Program	N	Type of Program	N
A.1	164	B.4	5
A.2	87	C.1	3
A.3	39	C.2	14
B.1	44	D.1	4
B.2	9	D.2	24
B.3	22	E	3
		Unclassified	7

To demonstrate further some of the empirical differences among the program types, illustrative examples of two actual programs are presented. An example of Program Type A.1 is the "Autumn Meeting of the American Physical Society," in which the major purpose was to present reports on recent research achievements in physics. Approximately 545 physicists attended the meeting which lasted two days. There were five or six simultaneous paper reading sessions each morning and afternoon, with each research paper lasting 10 to 30 minutes, and each followed by five to ten minutes of questions.

In contrast, the "Cross-National Conference on Childhood and Adolescence" is an example of Program Type D.1. The major purposes of this conference were (1) to originate proposals and develop concrete plans for joint research in childhood and adolescence on the cross-national level, and (2) to exchange information among researchers about projects now in progress. The program lasted eight days, with 30 research sociologists, psychologists, educational psychologists, and

human development specialists from eight countries. They were assisted by 11 recorders and research assistants, and by 12 guest experts who attended one or two sessions each. There was one daily General Session (total of eight hours during the conference), and the balance of the time was spent in small working groups. Each group worked on a special problem defined in advance. At other times individuals did library research or prepared reports and manuscripts. The Conference papers were compiled into a comprehensive report and published in book form.

The answer to the question of whether a typology can be developed is, yes, one can be developed. Twelve program types, ordered hierarchically according to organizing principles, are described in the foregoing discussion. The typology is based on educational distinctions, reflects logical coherence, and is descriptive at a level of generality such that individual programs may be easily recognized in terms of the program types.

Do the Typology and its Elements Satisfy Five Validation Criteria?

This question focusses on the extent to which the typology of twelve program types, with its program elements, meets five criteria established to test the validity of the scheme. The criteria, communicability, comprehensiveness, usefulness, consistency, and acceptance, were identified in a review of social science theory and research literature on the development of classification schemes.¹

¹Bloom, Taxonomy: Handbook I, pp. 17-24; see also Paul F. Lazarsfeld and Allen H. Barton, "Qualitative Measurement in the Social Sciences: Classification, Typologies, and Indices," in The Policy Sciences, ed. Daniel Lerner and Harold D. Lasswell (Stanford: Stanford University Press, 1951), pp. 157, 163-65; and Coolie Verner, A Conceptual Scheme for the Identification and Classification of Processes for Adult Education (Chicago: Adult Education Association, 1962).

Communicability

The criterion communicability was defined in the study as the extent to which a group of competent workers can agree on the description of programs by utilizing the three program elements. A test-retest reliability procedure conducted with three program directors at three institutions, resulted in agreement on the description of programs in 65.0 per cent of the cases. In addition, the directors placed 22.5 per cent of the programs in adjacent categories, and 12.5 per cent of the programs in non-adjacent categories. Individually, the three directors placed from 56.3 to 72.7 per cent of the programs in the same category, 7.7 to 31.2 per cent in adjacent categories, and 0.0 to 23.0 per cent in non-adjacent categories.

A test of objectivity, in which seven pairs of judges (program directors and coordinators) described the same programs, resulted in agreements on the same category ranging from 50.0 per cent for four pairs of judges, to 83.3 per cent for one pair. Collectively, the judges placed 65.4 per cent of the programs in the same categories, 25.0 per cent in adjacent categories and 9.6 per cent in non-adjacent categories.

The results of the procedures described above and interviews with coordinators, program directors and professors of adult education, which were used to test communicability, indicated that the elements of the typology were apparently clearly understood and appropriately applied by the respondents. It was concluded, therefore, that the elements of the typology satisfied the criterion communicability as established for the study.

Comprehensiveness

Comprehensiveness was defined in this study as (a) the extent to which

all programs can be described by using the program elements, and (b) the extent to which all programs so described can be classified within the typology. By using the three program elements, conference directors and coordinators and the investigator, were able to describe 425 programs, or 88.5 per cent, of the 480 programs conducted in the five centers during the period studied. The balance of the programs (N=55) were not described because of insufficient information about either objectives, interaction patterns, or time schedule.

The investigator was able to classify, within the twelve program types that constitute the typology, 418, or 98.3 per cent, of the 425 programs described by the conference personnel. Only seven programs could not be classified within one of the twelve program types because information about their program objectives was not sufficiently precise.

Persons interviewed were in general agreement that the program elements could be used to describe all residential programs, although some thought that the elements were better able to describe highly structured programs than loosely structured programs. Respondents were not able to suggest specific programs that could not be described by using the three program elements, and all but one respondent thought that the elements adequately and fairly described the programs they had conducted. Some respondents did point out, however, that the list of objectives used to collect data did not include psychomotor objectives, although the study instrument did contain an "other" category. Three programs with apparent psychomotor objectives were identified in later analysis, although their objectives were stated too vaguely to be useful in classifying the programs.

The criterion comprehensiveness cannot be fully tested, of course, for new programs are being developed daily. In theory, however, such new programs could

be classified within the typology. It is believed that the results of the three tests reported above provide evidence sufficient to warrant the conclusion that the elements of the typology essentially satisfy the criterion comprehensiveness.

Usefulness

Usefulness was defined in this study as the extent to which the typology and its elements stimulate thought about educational problems and programs. Specifically, the typology and its elements (1) should describe and define programs with precision; (2) should generate relationships, questions, and hypotheses for research purposes; and (3) should help to solve practical problems. In determining the usefulness of this scheme, there were three sources of data: (1) interviews with seven conference personnel and four professors of adult education; (2) a review of literature on residential programs and related disciplines; and (3) a logical analysis of the relationships, structure, and categories of the scheme.

Several specific uses, questions and studies were identified and illustrated and perhaps it is most appropriate to consider first the ways in which the three program elements (interaction patterns, objectives, and time) are useful:

- (a) The organization of research and practical literature according to any of the program elements.
- (b) Description of situations for experimental research studies on questions such as:
 - (1) To what extent is the achievement of specific objectives related to the interaction process employed?
 - (2) To what extent does time make a difference in achieving specific objectives or utilizing certain interaction processes?
- (c) Planning and designing of residential programs may be enhanced by employing the three elements and consciously relating them to each other.

- (d) The elements may be applied to a wide variety of teaching-learning situations for adult and youth for the creation of effective learning experiences.

The typology may be used in some of the ways indicated above and in other ways:

- (a) The organization of literature according to the program types would be helpful in discovering the current state of knowledge and practice relating to each type of program.
- (b) Description of programs would be helpful in conducting a variety of comparative research studies.
- (c) The planning and designing of programs can be enhanced by considering the several types of programs identified in this study and applying them to the solution of particular educational problems.

Implications for practice have been suggested, as well as research questions and studies which would increase our understanding of learning and programming in residential centers. It is believed that the practical and theoretical uses of the typology and its elements suggested by those interviewed, by the search of literature, and by logical analysis of the scheme, are sufficiently significant and numerous enough to meet the criterion of usefulness to the field of residential adult education. Of course, the ultimate test of usefulness will be the extent to which the typology is utilized in the ways indicated above.

Consistency

The criterion consistency was defined in this study as the extent to which the typology is in accordance with the theoretical views expressed in research findings on residential programs. This criterion is an attempt to determine whether or not the typology approaches the level of sophistication and power of explanation necessary to be labelled a taxonomy of residential programs.

The typology and its elements employ a number of distinctions which are consistent with theory and research findings in educational, sociological, and psychological literature. The Taxonomy of Educational Objectives, for example, serves as the basis for the categories and organization of the objectives element used in the study.¹ A distinction between individual and group objectives employed is one made by Raven.² The interaction element is based upon and is consistent with concepts developed by Verner³ and Ginther,⁴ and it also draws upon ideas described by Bergevin, Morris, and Smith.⁵ Principles of organization and timing from Tyler's curriculum development rationale were employed in discriminating among program types in the typology.⁶ The importance and use of timing in temporary systems is consistent with the concepts of Miles, a social psychologist.⁷

Krathwohl, Bloom and Masia also cite studies which suggest that there are certain relationships between different levels of objectives and different interaction patterns.⁸ Specifically, the typology is constructed in such a way that the

¹ Bloom, Taxonomy: Handbook I; Krathwohl, Bloom, and Masia, Taxonomy: Handbook II.

²B. Raven, "Workshop Planning and Evaluation--A Problem-Solving Approach," Journal of Educational Sociology, XXVI, No. 7 (1953), 318-26.

³Verner, A Conceptual Scheme.

⁴Ginther, "Conceptual Model."

⁵Paul Bergevin, Dwight Morris, and Robert M. Smith, Adult Education Procedures: A Handbook of Tested Patterns for Effective Participation (Greenwich: The Seabury Press, 1963).

⁶Ralph W. Tyler, Basic Principles of Curriculum and Instruction (Chicago: University of Chicago Press, 1950).

⁷Matthew B. Miles, "On Temporary Systems," in Innovation in Education, ed. Matthew B. Miles (New York: Bureau of Publication, Teachers College, Columbia University, 1964).

⁸Krathwohl, Bloom and Masia, Taxonomy: Handbook II, p. 77.

lower level objectives are associated with a wide variety of both didactic and dialectical program formats, while the higher levels of the typology are associated principally with dialectical formats. This relationship is consistent also with findings reported by Verner and Dickinson in an analysis of research on lectures.¹ Certain program types identified in this study are consistent with three "temporary systems" identified by Miles.² His "program changing system" is similar in purpose and process to type D. 2 of this study; his "person changing system" is similar to program types A. 2, B. 1. and B. 4; and his "structure changing system" is similar to program types B. 3 and C. 2.

Both theoretical formulations and research findings on residential adult education are scarce, for almost no research has been conducted on programs as such.

Aker, for example, found no theoretical formulations on residential adult education, and only six on group methods tangentially related to residential programs.³

In conclusion, the number of research studies directly relevant to the typology is extremely small and because of the sparseness of solid research findings, it is difficult to assert that the typology meets the criterion of consistency. On the other hand, it is not accurate to say that the typology clearly does not meet the criterion. The evidence is simply inadequate to make a firm judgment either way, but the small amount of evidence that is available suggests that the typology is more consistent than inconsistent with the research findings. Thus, the typology must be considered a high order classification scheme with some of the attributes of a taxonomy, but without the foundation of empirical research findings necessary

¹Coolie Verner and Gary Dickinson, "The Lecture, An Analysis and Review of Research," Adult Education, XVII, No. 2 (Winter, 1967), 85-100.

²Miles, "On Temporary Systems," pp. 445-52.

³George F. Aker, Adult Education Procedures, Methods, and Techniques: A Classified and Annotated Bibliography, 1953-63 (Syracuse: The Library of Continuing Education and University College, Syracuse University, 1965).

to warrant the label of a taxonomy. The resolution of this question will have to await the results of further research, hopefully some of it done with the aid of the classification scheme developed in this study.

Acceptance

The criterion acceptance was defined in this study as the extent to which the scheme is accepted and used by workers in the field of residential adult education. Evidence from eleven interviews with conference personnel and professors of adult education, and information gathered from other practitioners, indicate tentative acceptance of the program elements and the typology in its present form. One conference director, for example, in giving his opinion of the program elements, said:

I think it will be well accepted and partly because . . . there is an immediate recognition of the applicability of it. The specific ways in which it is helpful became more and more clear as I worked with it. So, yes, I'm very optimistic about that.

Conference planners cited a variety of ways that they intended to use the elements, such as in helping program planning committees to specify more concretely the characteristics of programs, and to expand the committee members' ideas on program possibilities. Three of the four professors cited ways that they intended to use the elements in their teaching and research activities, including using the interaction diagrams and organizational ideas to apply to conceptual frameworks they had developed.

Kafka¹ is presently doing a study on the extent to which three determinants of residential adult education are associated with the participants' level of cognitive

¹James J. Kafka, "Determinants of Residential Adult Education Effectiveness," unpublished Ph.D. dissertation, Department of Education, University of Chicago, in progress.

achievement in two different types of programs. He applied this typology to the kinds of programs he studied and found it helpful in describing differences among them. The usage of the typology in his study indicates some usefulness and acceptance of it.

The criterion acceptance cannot be tested fully in the present study because the criterion ~~acceptance~~ ^{acceptance} of the typology depends on use by other people, and it has not received wide distribution. The evidence gathered to date, however, does suggest tentative acceptance among nearly all persons who have had an opportunity to study or use the typology. A more definitive conclusion must await wider dissemination to the field of adult education.

In conclusion, the typology and its elements appear to satisfy, for the most part, the five criteria of communicability, comprehensiveness, usefulness, consistency, and acceptance which were established to test the typology.

Limitations of the Study

There is an inherent difficulty in studying something which involves human behavior and how that behavior is interpreted by other people. This is especially so when the entities studied are not fully tangible--for while programs examined in this study existed in time, they left behind necessarily only a partial record, not a complete, minute-by-minute fully documented record.

It is possible that there was some distortion in the data collected on programs.

Respondents were asked to describe programs several months after they took place, and they were also asked to describe what the planners (i.e., the conference coordinators themselves) and the teachers intended to have happen in the program with respect to the three elements -- objectives, interaction patterns, and time

allotments. What actually happened in a given program may have colored the respondent's memory of what was intended to happen, and therefore some distortion may have been introduced into descriptions of individual programs. In addition, many planners do not really have clearly in mind themselves what they want to have happen.

A higher inter- and intra-rater agreement on tests of objectivity and reliability would be desirable. The percentages of agreement might well have been higher if some of the conference personnel had had more cases to describe.

As with most methodologies, the inductive method selected for this study had its own inherent limitations. Perhaps the major disadvantage of the process is that it does not have clearly defined parameters for the admission of evidence, and therefore the investigator may explore a number of "blind alley's" before he discovers the boundaries of his study or the central focus of his concerns. Thus, at decision points, the process requires a great deal of interpretation by the investigator. In this particular study, however, this possible limitation was thought to be an advantage because of the complexity of the data to be analyzed, and the state of the art in residential adult education.

Implications for Further Research

The typology developed in this study suggests a number of uses, questions, hypotheses and studies.

The typology and its elements, each of which is ordered according to hierarchical principles, permit the review and organization of research and descriptive literature on residential programs, program objectives, and methods or processes, with a view toward identifying gaps in our knowledge. One review

of the literature showed that a great deal of research has been done on both the lecture and the group discussion, but almost none has been conducted on processes that fall between these two extremes. Similar studies could be done on the literature concerning program goals and program types, if writers were to describe in sufficient detail the objectives and processes employed in programs on which research has been conducted.

The typology and its elements permit rigorous and precise description and definition of a program in terms of its goals, interaction processes, timing, and related factors. If used by persons in the field, the typology should make it easier to communicate about programs, to interpret research findings on programs, and to know the extent to which two programs being compared are similar or dissimilar.

The typology and its elements make possible a large number of both practical and theoretical comparative studies. With a clear definition of a program provided by the various elements, it is now possible to study intensively a given type of program to understand its dynamics and the interrelationships among its various sessions and parts. The development of a program profile reflecting the proportion of different types of programs conducted in a given residential center would be an extremely worthwhile undertaking and could have implications for staffing, allocation of resources, changes in program emphasis, and changes in physical facilities. The variety of ways in which programs can be compared or studied will permit a number of research investigations focussed on adult learning and achievement, in a variety of settings, under a variety of conditions.

The typology and its elements demonstrate clear relationships with the literature of other disciplines such as psychology, sociology, communication,

and the larger field of education. Theories and research findings from these disciplines should aid in conducting studies which employ any one of a variety of points of view. For example, the study of an individual's behavior in various settings under various interaction conditions is clearly an educational-sociological-psychological problem, worthy of investigation from a variety of points of view, including interdisciplinary approaches.

The elements and the typology may also suggest a variety of ideas on the planning and designing of new programs, or ways to introduce variations into current programs.

Another outcome of the study was that the program elements were thought by respondents to be useful in describing almost any teaching-learning situation for adults. This finding increases the usefulness of the elements in carrying out comparative studies of programs in different settings. In addition, research findings on non-residential programs may be interpreted and related to residential programs if the elements are used as suggested above.

To what extent is the "planned" or "intended" program actually carried out? This investigation has been a study of the intentions of planners and teachers after the fact. It has also been a study of the program as an entity taking place at a specific time. What changes or adjustments are normally made in programs as they are executed? How realistic is the planning? A comparative study of the planned program versus the actual program, involving prediction and direct observation, respectively, would be one appropriate means for discovering answers to these questions.

Is the typology truly hierarchical in nature? The elements and the typology are based upon organizing principles and are logically structured hierarchically

in line with existing research findings. Would additional research suggest a different structure? An empirical test of the typology's hierarchical structure of points of view is a logical next investigation.

Are there additional program types? Institutions or organizations not a part of this study may have developed different types of programs. How would such types be encompassed by the typology in its present form? Programs from

The elements and the typology may also be used to examine a wide variety of institutions should be examined to test further the comprehensiveness of the typology. In addition, experiments could be undertaken to try to plan and conduct conferences on the basis of logical possible extensions of the typology.

The inductive method permits the admission of a wide variety of data, theories, and points of view in an attempt to identify the real issues and concerns relevant to the broadly defined study area. This was particularly important

in this study because of the complex nature of the residential adult education program which has not had much attention in educational theory. One of the

implications of this study, it would seem, relates to the possible use of the inductive methodology in other areas of adult education where data are complex and the best way of coherently organizing data is not immediately clear.

This typology may help to illustrate to other investigators how one portion of the field of adult education can be systematically organized and described.

In addition, the typology relates residential programs to the concerns, theories, and research of the larger field of education. It should also help the practicing residential adult educator to gain a better understanding of the nature and type of program he conducts.

A Concluding Note

The major outcome of this study is a typology of programs which describes, defines, and relates programs systematically to each other in ways which will permit rigorous empirical investigations to further our understanding of such programs. A large number of potential investigations have been suggested. In fact, it is clear that the field of residential adult education is richer in its questions than in its answers. This typology, therefore, is submitted to the field in the hope that other persons will be stimulated to use it, to test it, and to refine it, and at the same time to answer some of the questions that have been posed by it.

APPENDIX I

THE PROGRAM ELEMENT INTERACTION: THE FLOW OF COMMUNICATION IN PROGRAM SESSIONS

Statements Describing Interaction Patterns		Graphic Representation
1. The flow of communication is from teacher(s) to students, as in a lecture situation. Teachers following each other consecutively within a session do not interact with each other. Teacher has responsibility for directing the activity and students listen passively. No overt participation is necessary by students, nor is any provision made for their participation.		
2. The flow of communication is from teachers to students and among teachers. It is more complicated than in #1 because the student must attend to discussion or interaction among the teachers (who try to clarify, explain, or dispute one another's statements). Teachers have responsibility for directing the activity and students listen passively as in #1.		
3. The flow of communication is from teacher(s) to students. Teachers following each other consecutively within a session do not interact with each other. Teacher retains responsibility for directing the activity, and for the most part students listen passively, but there is opportunity for some students to participate by volunteering comments or questions.		
4. The flow of communication is from teachers to students (as in #3), but also among teachers (as in #2). Teachers retain responsibility for directing the activity, and for the most part students listen passively, but there is opportunity for some students to participate by volunteering comments or questions.		
5. The flow of communication is distributed more fully among all involved. There is interaction between teacher(s) and students, and among students (as in "buzz" groups), but not among teachers following each other consecutively within a session. Teacher still retains major responsibility for directing the activity, but since it is necessary for nearly all students to participate actively in the experience, they also share some of this responsibility.		
6. The flow of communication is distributed more fully among all involved. There is interaction between teachers and students, and among students (as in #5), but also among teachers (as in #s 2 and 4). Teachers still retain major responsibility for directing the activity, but since it is necessary for nearly all students to participate actively in the experience, they also share some of this responsibility.		
7. The flow of communication is among all participants—teachers and students alike—in a face-to-face group. Although there may be a person designated teacher or leader, responsibility for direction of the activity rests fully on the group and its individual members. Each student has opportunity for extensive and sustained participation.		
8. Communication is between student and a teacher (e.g., a tutorial conference) or between the student and his materials when he works independently under guidance on an individual project. The student has opportunity for full participation and he may discuss, read, write, or solve paper-and-pencil problems. The responsibility for carrying out the activity rests fully with him.		

APPENDIX II

THE PROGRAM ELEMENT OBJECTIVES AS ADAPTED FOR USE IN THIS STUDY¹

Statements of Program Objectives	Level of Objectives
<p>1. To remember, understand, comprehend, or interpret specific information or knowledge of some kind.*</p> <p>2. To be aware of, or to respond to a given stimulus, phenomenon, or state of affairs; to acquire an interest in something.**</p> <p>3. To apply information or knowledge in particular and concrete situations (e.g., to solve a problem; to explain a phenomenon).*</p> <p>4. To accept a value, phenomenon, or behavior to the extent that one prefers it or becomes committed to it; to acquire an "attitude" toward something.**</p> <p>5. To analyze (i.e., break-down) a communication into its constituent parts and principles; or to synthesize or combine elements and parts to form a whole, such as in producing a book, a teaching unit, or a plan; or to evaluate (i.e., make judgments about) the value, for given purposes, of some idea, object, solution, etc.*</p> <p>6. To become characterized by a consistent and related set of values or attitudes in such a way that one may be said to have a consistent "philosophy of life."**</p> <p>Other (unable to categorize above):</p>	<p>Low</p> <p>Middle</p> <p>High</p>

¹Sources: B. S. Bloom (ed.) The Taxonomy of Educational Objectives: Handbook I: Cognitive Domain (New York: Longmans, Green and Co. 1965); D. R. Krathwohl, B.S. Bloom, and B.R. Masia, The Taxonomy of Educational Objectives: Handbook II: Affective Domain (New York: David McKay Co. 1964).

*Cognitive objectives.

**Affective objectives.

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